

1. An apparatus comprising:
a substrate comprising a semiconductor material;
a dielectric layer over the substrate; and
a magnetic layer over the dielectric layer, the magnetic layer comprising an amorphous alloy comprising cobalt.
2. The apparatus of claim 1, wherein the amorphous alloy comprises cobalt and zirconium.
3. The apparatus of claim 2, wherein the amorphous alloy comprises approximately 3 atomic percent to approximately 10 atomic percent zirconium.
4. The apparatus of claim 1, wherein the amorphous alloy comprises cobalt, zirconium, and tantalum.
5. The apparatus of claim 4, wherein the amorphous alloy comprises approximately 3 atomic percent to approximately 10 atomic percent zirconium and up to and including approximately 10 atomic percent tantalum.
6. The apparatus of claim 5, wherein the amorphous alloy comprises approximately 4 atomic percent zirconium and approximately 4.5 atomic percent tantalum.
7. The apparatus of claim 1, wherein the amorphous alloy comprises cobalt, zirconium, and niobium.

8. The apparatus of claim 1, wherein the amorphous alloy comprises cobalt, zirconium, and a rare earth element.
9. The apparatus of claim 8, wherein the amorphous alloy comprises cobalt; zirconium; and rhenium, neodymium, praseodymium, or dysprosium.
10. The apparatus of claim 8, wherein the amorphous alloy comprises approximately 3 atomic percent to approximately 10 atomic percent zirconium and up to and including approximately 3 atomic percent rhenium.
11. The apparatus of claim 1, wherein the magnetic layer comprises an underlying adhesion layer.
12. The apparatus of claim 11, wherein the underlying adhesion layer comprises titanium.
13. The apparatus of claim 1, wherein the magnetic layer comprises an overlying adhesion layer.
14. The apparatus of claim 13, wherein the overlying adhesion layer comprises titanium or cobalt oxide.
15. The apparatus of claim 1, wherein the magnetic layer is patterned.

16. A method comprising:
- forming a dielectric layer over a substrate comprising a semiconductor material; and
- forming over the dielectric layer a magnetic layer comprising an amorphous alloy comprising cobalt.
17. The method of claim 16, wherein the forming a magnetic layer comprises forming a magnetic layer comprising an amorphous alloy comprising cobalt and zirconium.
18. The method of claim 17, wherein the forming a magnetic layer comprises forming a magnetic layer comprising an amorphous alloy comprising approximately 3 atomic percent to approximately 10 atomic percent zirconium.
19. The method of claim 16, wherein the forming a magnetic layer comprises forming a magnetic layer comprising an amorphous alloy comprising cobalt, zirconium, and tantalum.
20. The method of claim 19, wherein the forming a magnetic layer comprises forming a magnetic layer comprising an amorphous alloy comprising approximately 3 atomic percent to approximately 10 atomic percent zirconium and up to and including approximately 10 atomic percent tantalum.
21. The method of claim 20, wherein the forming a magnetic layer comprises forming a magnetic layer comprising an amorphous alloy comprising approximately 4 atomic percent zirconium and approximately 4.5 atomic percent tantalum.

22. The method of claim 16, wherein the forming a magnetic layer comprises forming a magnetic layer comprising an amorphous alloy comprising cobalt, zirconium, and niobium.
23. The method of claim 16, wherein the forming a magnetic layer comprises forming a magnetic layer comprising an amorphous alloy comprising cobalt, zirconium, and a rare earth element.
24. The method of claim 23, wherein the forming a magnetic layer comprises forming a magnetic layer comprising an amorphous alloy comprising cobalt; zirconium; and rhenium, neodymium, praseodymium, or dysprosium.
25. The method of claim 23, wherein the forming a magnetic layer comprises forming a magnetic layer comprising an amorphous alloy comprising approximately 3 atomic percent to approximately 10 atomic percent zirconium and up to and including approximately 3 atomic percent rhenium.
26. The method of claim 16, wherein the forming a magnetic layer comprises forming an underlying adhesion layer for the magnetic layer.
27. The method of claim 26, wherein the forming an underlying adhesion layer comprises forming an underlying adhesion layer comprising titanium.

28. The method of claim 16, comprising forming the magnetic layer in a fixed or switching magnetic field.
29. The method of claim 16, wherein the forming a magnetic layer comprises forming an overlying adhesion layer for the magnetic layer.
30. The method of claim 29, wherein the forming an overlying adhesion layer comprises forming an overlying adhesion layer comprising titanium or cobalt oxide.
31. The method of claim 29, wherein the forming an overlying adhesion layer comprises oxidizing the magnetic layer.
32. The method of claim 16, comprising patterning the magnetic layer.
33. The method of claim 32, wherein the patterning comprises etching an underlying adhesion layer for the magnetic layer and/or an overlying adhesion layer for the magnetic layer using a hydrofluoric acid solution.
34. The method of claim 33, wherein the patterning comprises wet etching the magnetic layer using a nitric acid solution.
35. The method of claim 16, comprising annealing the magnetic layer in a magnetic field.

36. A method comprising:

(a) forming a dielectric layer over a substrate comprising a semiconductor material;

(b) forming a magnetic layer over the dielectric layer, wherein the forming a

magnetic layer comprises:

(i) forming an underlying adhesion layer over the dielectric layer,

(ii) forming over the underlying adhesion layer magnetic material comprising

an amorphous alloy comprising cobalt, and

(iii) forming an overlying adhesion layer over the magnetic material; and

(c) patterning the magnetic layer.

37. The method of claim 36, wherein the forming magnetic material comprises forming magnetic material comprising an amorphous alloy comprising cobalt and zirconium.

38. The method of claim 36, wherein the forming magnetic material comprises forming magnetic material in a fixed or switching magnetic field.

39. The method of claim 36, wherein the patterning comprises wet etching the magnetic material using a nitric acid solution.

40. The method of claim 36, wherein the patterning comprises etching the underlying adhesion layer and/or the overlying adhesion layer using a hydrofluoric acid solution.